Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-2 (Canceled).

2 ~~3~~ (Currently Amended). A ~~fused chimeric protein~~method according to claim ~~1~~1, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a mutated DNA fragment of the full length *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE66.

1, 3 ~~4~~ (Currently Amended). A method according to claim ~~2~~, wherein said fused chimeric protein ~~according to claim 1,~~ is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a DNA fragment comprising domains II and III of the *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE40.

5-8 (Canceled).

1 ~~9~~ (Currently Amended). A method for the treatment of adenocarcinoma or hepatocarcinoma in a mammal, comprising administering to the body of a mammal in need of such therapy an effective amount, sufficient to at least reduce the growth of said adenocarcinoma or hepatocarcinoma, of at least one fused chimeric protein comprising a linear genetically

engineered molecule consisting essentially of peptide bonds, produced by fusing, at the level of cDNA:

A. DNA encoding at least one cell targeting moiety consisting essentially of Met-GnRH or a Met-GnRH analog that specifically binds to GnRH binding sites on Caco2 adenocarcinoma cells; and

B. DNA encoding at least one cell killing moiety.

~~as defined in claim 1, sufficient to at least reduce the growth of said adenocarcinoma or hepatocarcinoma.~~

4 10 (Previously Presented). A method for adenocarcinoma or hepatocarcinoma therapy according to claim 1 9, wherein said administering step is by systemic administration of said chimeric protein.

11-21 (Cancelled)

5 22 (Previously Presented). A method of treating a mammal having at least one adenocarcinoma or hepatocarcinoma, comprising administering to said mammal in need thereof, an amount sufficient to ameliorate the effects of said adenocarcinoma or hepatocarcinoma, of a pharmaceutical composition, comprising a fused chimeric protein comprising a linear genetically engineered molecule consisting essentially of peptide bonds, produced by fusing, at the level of cDNA:

A. DNA encoding at least one cell targeting moiety consisting essentially of Met-GnRH or a Met-

GnRH analog that specifically binds to GnRH binding sites on Caco2 adenocarcinoma cells; and

B. DNA encoding at least one cell killing moiety.

~~as claimed in claim 1, sufficient to ameliorate the effects of said adenocarcinoma or hepatocarcinoma.~~

6 ~~23~~ (Currently Amended). A method of treating a mammal having endometriosis, comprising administering to said mammal in need thereof, an amount sufficient to ameliorate the effects of said endometriosis, of a pharmaceutical composition, comprising a fused chimeric protein comprising a linear genetically engineered molecule consisting essentially of peptide bonds, produced by fusing, at the level of cDNA:

A. DNA encoding at least one cell targeting moiety consisting essentially of Met-GnRH or a Met-GnRH analog that specifically binds to GnRH binding sites on Caco2 adenocarcinoma cells; and

B. DNA encoding at least one cell killing moiety.

~~as claimed in claim 1, sufficient to ameliorate the effects of said endometriosis.~~

7 ~~24~~ (Previously Presented). A method for endometrioma therapy according to claim 6 ~~13~~, further comprising trans-cervical washing of the mammal's endometrial cavity.

8 ~~25~~ (Currently Amended). A method of treating a mammal having a uterine myoma, comprising administering to

said mammal in need thereof, an amount sufficient to ameliorate the effects of said uterine myoma, of a pharmaceutical composition, comprising a fused chimeric protein comprising a linear genetically engineered molecule consisting essentially of peptide bonds, produced by fusing, at the level of cDNA:

A. DNA encoding at least one cell targeting moiety consisting essentially of Met-GnRH or a Met-GnRH analog that specifically binds to GnRH binding sites on Caco2 adenocarcinoma cells; and

B. DNA encoding at least one cell killing moiety.

~~as claimed in claim 1, sufficient to ameliorate the effects of said uterine myoma.~~

9. ~~26~~ (Currently Amended). A method of treating a mammal having a pituitary adenoma, comprising administering to said mammal in need thereof, an amount sufficient to ameliorate the effects of said pituitary adenoma, of a pharmaceutical composition, comprising a fused chimeric protein comprising a linear genetically engineered molecule consisting essentially of peptide bonds, produced by fusing, at the level of cDNA:

A. DNA encoding at least one cell targeting moiety consisting essentially of Met-GnRH or a Met-GnRH analog that specifically binds to GnRH binding sites on Caco2 adenocarcinoma cells; and

B. DNA encoding at least one cell killing moiety.

~~as claimed in claim 1, sufficient to ameliorate the effects of said pituitary adenoma.~~

10/27 (Currently Amended). A method of treating a mammal having BPH, comprising administering to said mammal in need thereof, an amount sufficient to ameliorate the effects of said BPH, of a pharmaceutical composition, comprising a fused chimeric protein comprising a linear genetically engineered molecule consisting essentially of peptide bonds, produced by fusing, at the level of cDNA:

A. DNA encoding at least one cell targeting moiety consisting essentially of Met-GnRH or a Met-GnRH analog that specifically binds to GnRH binding sites on Caco2 adenocarcinoma cells; and

B. DNA encoding at least one cell killing moiety.

~~as claimed in claim 1, sufficient to ameliorate the effects of said BPH.~~

11/28 (Currently Amended). A method of treating a mammal having polycystic breast disease, comprising administering to said mammal in need thereof, an amount sufficient to ameliorate the effects of said polycystic breast disease, of a pharmaceutical composition, comprising a fused chimeric protein comprising a linear genetically engineered

molecule consisting essentially of peptide bonds, produced by fusing, at the level of cDNA:

A. DNA encoding at least one cell targeting moiety consisting essentially of Met-GnRH or a Met-GnRH analog that specifically binds to GnRH binding sites on Caco2 adenocarcinoma cells; and

B. DNA encoding at least one cell killing moiety.

~~as claimed in claim 1, sufficient to ameliorate the effects of said polycystic breast disease.~~

29-36 (Cancelled).

12/37 (New). A method according to claim 5/22, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a mutated DNA fragment of the full length *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE66.

13/38 (New). A method according to claim 5/22, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a DNA fragment comprising domains II and III of the *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE40.

14/39 (New). A method according to claim 6/23, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing

hormone (GnRH) or a GnRH analog, preceded by a Met, to a mutated DNA fragment of the full length *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE66.

15 40 (New). A method according to claim 6/23, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a DNA fragment comprising domains II and III of the *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE40.

16 41 (New). A method according to claim 8/25, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a mutated DNA fragment of the full length *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE66.

17 42 (New). A method according to claim 8/25, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a DNA fragment comprising domains II and III of the *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE40.

18 43 (New). A method according to claim 9/26, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a

mutated DNA fragment of the full length *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE66.

19 ~~4~~ 9 (New). A method according to claim ~~16~~, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a DNA fragment comprising domains II and III of the *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE40.

20 ~~45~~ 10 (New). A method according to claim ~~17~~, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a mutated DNA fragment of the full length *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE66.

21 ~~46~~ 10 (New). A method according to claim ~~17~~, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a DNA fragment comprising domains II and III of the *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE40.

22 ~~47~~ 11 (New). A method according to claim ~~18~~, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a mutated DNA fragment of the full length *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE66.

23 ~~48~~ (New). A method according to claim 11 ~~28~~, wherein said fused chimeric protein is produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a DNA fragment comprising domains II and III of the *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE40.